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Hospital Board Oversight of Quality and Patient Safety: A Narrative Review and Synthesis of Recent Empirical Research

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Context: Recurring problems with patient safety have led to a growing interest in helping hospitals' governing bodies provide more effective oversight of the quality and safety of their services. National directives and initiatives emphasize the importance of action by boards, but the empirical basis for informing effective hospital board oversight has yet to receive full and careful review.

Methods: This article presents a narrative review of empirical research to inform the debate about hospital boards' oversight of quality and patient safety. A systematic and comprehensive search identified 122 papers for detailed review. Much of the empirical work appeared in the last ten years, is from the United States, and employs cross-sectional survey methods.

Findings: Recent empirical studies linking board composition and processes with patient outcomes have found clear differences between high- and low-performing hospitals, highlighting the importance of strong and committed leadership that prioritizes quality and safety and sets clear and measurable goals for improvement. Effective oversight is also associated with well-informed and skilled board members. External factors (such as regulatory regimes and the publication of performance data) might also have a role in influencing boards, but detailed empirical work on these is scant.

Conclusions: Health policy debates recognize the important role of hospital boards in overseeing patient quality and safety, and a growing body of empirical research has sought to elucidate that role. This review finds a number of areas of guidance that have some empirical support, but it also exposes the relatively inchoate nature of the field. Greater theoretical and methodological development

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is required if we are to secure more evidence-informed governance systems and practices that can contribute to safer care.

Keywords: governing boards, trustees, patient safety, quality improvement.

As corporate entities with statutory oversight responsibilities, hospital governing boards are accountable for the overall quality and safety of the care their hospitals provide. They therefore have a fundamental governance role in the oversight of quality and safety, by defining priorities and objectives, crafting strategy, shaping their culture, and designing systems of organizational control. However, recurrent problems with quality and patient safety on both sides of the Atlantic have raised concerns about the boards' ability to discharge these duties with appropriate effect (Conway 2008; Francis 2013; Jha and Epstein 2010).

In the United States, the Institute of Medicine's landmark report *To Err Is Human: Building a Safer Health System* (IOM 1999) makes clear that health care organizations must attend to quality and patient safety. Since then, however, improvement in the standard of hospital care has been frustratingly slow (Landrigan et al. 2010; Leistikow, Kalkman, and de Bruijn 2011; Wachter 2010), and boards, especially, appear to have paid insufficient attention to quality and safety (Curran and Totten 2010; Jha and Epstein 2010). In the United States, the 2010 Affordable Care Act requires hospital boards to take an active role in strengthening their governance processes to ensure that quality and efficiency are improved. Formal guidance, advice, and supporting tools have been developed to help enhance hospital boards' effectiveness in this regard (Belmont et al. 2011b) and also in recognition of the organizational and environmental pressures they face. The reorganization of hospital services into various forms of multiunit systems exemplify these current changes to governance activity, oversight, and decision-making responsibilities, which may well require a substantial modification of the boards' role (Alexander and Lee 2006; Alexander, Weiner and Succi 2000; Alexander et al. 2009; Prybil 1991).

In the English National Health Service (NHS), recent high-profile reports of serious failings in hospital quality have rekindled concerns about the boards' effectiveness (House of Commons Health Committee 2009). Poor board leadership and governance have long been a theme of investigations into hospital scandals in England, such as the

mistreatment of long-stay patients at Ely Hospital (Secretary of State 1969) and, perhaps most notorious, the tragic events at Bristol Royal Infirmary, where poor board leadership was linked to high death rates in pediatric cardiac surgery (Kennedy 2001). More recently, in February 2013, the report of the public inquiry chaired by Robert Francis, QC, into the standard of care at the Mid Staffordshire NHS Foundation Trust estimated that as many as 1,200 people had died unnecessarily in the hospital between 2005 and 2008, resulting from a tolerance for poor standards in the organization that had been fostered by poor leadership and the management board's focus on achieving financial targets rather than safeguarding patients' welfare (Francis 2013).

Despite significant concerns about quality and safety in health care, which boards are clearly central to addressing, the evidence base to support action is unclear. Only relatively recently has research focused on governing boards and governance practices (Prybil, Bardach, and Fardo 2013). Although both standards and guidance on board oversight (Belmont et al. 2011a; Conway 2008; Joint Commission 2011) and summaries of evidence of the effectiveness of board oversight of quality and safety (e.g., Clough and Nash 2007; Oetgen 2009; Ramsay et al. 2013) have been produced, the research base has not yet been fully exploited. The purpose of this article, therefore, is to review and synthesize the rapidly expanding evidence base in relation to board oversight of quality and patient safety, with the intention of informing future research, practice, and policy development.

Methods

Systematic reviews are an established means of summarizing available research. A number of approaches are available (see table 1), and selection depends on the review's aims and the nature of the evidence to be explored (Popay et al. 2006; Rodgers et al. 2009). Given the diffuse, emergent, and contested nature of the literature on governance of quality and patient safety and our primary objective of describing, interpreting, and synthesizing key findings and important contours of debate, we undertook a narrative systematic review. We aimed to produce a synthesis that would embrace the complexities and ambiguities associated with the topic and identify different narratives of board oversight related to

TABLE 1
Summary of Alternative Approaches to Systematic Review

Systematic Review Approach	Unit of Analysis	Focus of Observation	End Product	Application
Meta-analysis	Program	Effect sizes	Relative power of like programs	Whole program application
Narrative review	Program	Holistic comparison	Recipes for successful programs	Whole or majority replication
Realist synthesis	Mechanisms	Mixed fortunes of programs in different settings	Theory to determine best application	Mindful employment of appropriate mechanisms

Source: Adapted from Popay et al. 2006, 89.

quality and safety, in an inclusive and holistic manner and with the intention of supporting the development of policy, practice, and future empirical work.

We built on previous applications of the narrative approach to patient safety (Waring et al. 2010) and health care more generally (Greenhalgh et al. 2009; McCreaddie and Wiggins 2008; Powell, Rushmer, and Davies 2009). Iterative searches enabled us to refine the initially broad parameters of our exploratory searches and to identify story lines in the literature and map their development over time (Greenhalgh et al. 2005).

Finding Papers for the Review

To ensure rigor, we followed the accepted practice in identifying the review's focus, specifying the review question, searching for and mapping the available evidence, and identifying studies for inclusion (Greenhalgh et al. 2005). In selecting papers, we concentrated on those that considered board oversight in the context of quality and safety, and the research team and expert panel suggested seminal works and advised on search terms. The team drew up a list of key terms and searched the published literature from 1991 to the present across a number of databases, excluding articles not written in English.

The team then reviewed titles and abstracts for relevance, using broad inclusion criteria to identify studies of hospital board directors' or boards of trustees' oversight of quality and patient safety. In an earlier review, Clough and Nash (2007) identified 53 relevant articles that had been published after 1990. Our initial search uncovered 187 articles, and after reviewing their titles and abstracts, we settled on a subset of 66 papers for detailed study, which we added to those of the earlier review, removing duplicates. Disagreements on whether to select a reference for full review were resolved by discussion within the team. Finally, we used snowballing techniques to augment papers for review—manually, by searching references of included papers, and electronically, by using citation-tracking software to identify papers that cited already-included papers. These searches were adapted iteratively to ensure maximum capture of empirical work, and at the end of the process, we deemed 122 publications to be relevant (full list available from the authors).

Making Sense of the Published Literature

We followed guidance on narrative synthesis from Popay and colleagues (2006) in our data extraction and appraisal of study quality. Our main goal was to understand the effectiveness of oversight in terms of board composition and interventions with boards, such as setting standards and benchmarks. In particular, we were keen to explore any evidence for improved performance and patient outcomes—such as reductions in mortality and morbidity—from board interventions, as well as identifying those factors affecting the implementation of those board interventions.

The synthesis phase of our review explored key aspects of board oversight of quality and patient safety. Thematic mapping led to emergent coding and categorization, consistent with our review themes, which were themselves developed iteratively and in discussion with our advisory panel, to enable us to systematically identify the recurrent and most important themes and concepts across multiple studies (Popay et al. 2006). We identified four common story lines: leading for safer care, measuring safe care, implementing internal board oversight, and relying on external regulation and accountability. After a brief historical account of the growth of the field, we examine each story line and present a narrative synthesis.

Our review and synthesis built on evidence generated from systematic searches and the research team's contributions, but our searches may have missed some studies. For example, although we did not include the book by Jennings and colleagues (2004), we subsequently did incorporate into our review the important research evidence that it contains (Gray and Weiss 2004). We also attempted to mitigate the subjective selection and arrangement of recurrent themes (Rodgers et al. 2009) by weighting study appraisal in favor of published empirical studies that had transparent, explicit methods and research design. These major empirical studies (summarized in table 2) were the central focus of the review and were supplemented by additional forms of evidence, commonly referred to as "gray literature," which enabled us to consider standards, practices, and procedures related to the effective board oversight of patient safety. Decisions about including or excluding such studies were based on the extent to which studies provided evidence of boards' effectiveness in relation to quality and patient safety.

TABLE 2
Summary of Major Empirical Studies Exploring Board Oversight of Safe Care

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Baker et al. 2010 Canada and United States	15 governance experts, average of 10 board members across 4 case studies, survey of Quebec and Ontario health economies	To identify governance practices and improve governance related to patient safety	Semi-structured interviews, documentary analysis, and survey	Effective governance is in its early stages. Better information, expertise, plans, skills, and relationships still are required.
Gray and Weiss 2004 United States	98 CEOs and trustees from 16 nonprofit hospitals in New York City area	To learn about how trustees define their responsibilities; how they relate to hospital activities; and how they make decisions	Structured open-ended interviews with trustees and CEOs	Governance by boards was a strength and weakness for nonprofit hospitals. Fundamental ambiguities in the ethical significance of the trustee role were identified.
Goeschel et al. 2011 United States	35 boards from cross section of hospitals across Tennessee and Michigan	To identify effective measures for monitoring quality	Survey and voluntary site request for safety scorecards	Measures varied widely with uncertain validity. More valid outcome measures are required.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Jha and Epstein 2010				
United States	722 chairpersons from nonprofit acute care hospitals	To determine board engagement and activities in relation to quality of care	Survey and composite measures of hospital performance	Quality of care is often not a top priority, with differences in quality-related activities between high- and low-performing institutions.
Jha and Epstein 2012				
United States	722 chairpersons from "black-serving" and "non-black-serving" nonprofit hospitals	To compare how boards at black-serving and non-black-serving hospitals engage in quality of care issues	Survey and composite measures of hospital performance	Board chairs of black-serving hospitals report less expertise and priorities for quality issues than do chairs of non-black-serving hospitals.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Jha and Epstein 2013 United Kingdom	132 chairpersons from a cross section of English hospitals	To compare governance practices among English and U.S. hospital boards	Survey and composite measures of hospital performance	English board chairs report greater expertise and emphasis on quality of care issues than do U.S. board chairs. However hospital performance against quality metrics is not as substantial as in U.S.
Jiang et al. 2008 United States	562 hospital presidents/CEOs across 50 states selected from the 2006 Governance Institute (TGI) survey	To examine the prevalence and impact of particular board activities	Survey and composite measures of hospital performance	Governing boards are engaged in quality oversight, particularly through internal data and national benchmarks.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Jiang et al. 2009 United States	Based on Jiang et al.'s (2008) data set	To examine differences in hospital quality performance associated with particular practices	Based on Jiang et al. 2008	Better performance is associated with having a board quality committee, strategic goals, a quality agenda, safety dashboards/benchmarks, and the involvement of physician leaders.
Jiang, Lockee, and Fraser 2011 United States	445 hospitals selected from the 2007 Governance Institute (TGI) survey	To explore the practices of governing boards in quality oversight through the lens of agency theory	Survey and composite measures of care and mortality	Regularly reviewing quality performance is the most common practice.
Joshi and Hines 2006 United States	47 CEOs and board chairpersons from cross section of 30 hospitals across 14 states	To determine whether hospital leaders understand safety and quality issues and activities	Interview survey and composite measures of clinical quality	Overall level of knowledge is low, with significant differences between perceptions and some association between board engagement and hospital performance.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Kroch et al. 2006 United States	Convenience sample of 139 hospitals across 9 states	To analyze hospital board dashboards and their relationship to leadership engagement	Online dashboard implementation survey and performance data analysis using composite measures	Variation and commonalities were found in the way dashboards are created and used. Improved quality was linked to shorter, more focused dashboards.
Machell et al. 2010 United Kingdom	Nurse executives and boards in six English NHS hospital trusts	To examine the board's focus on clinical quality and the role of nurse executives in supporting this	Observations	Clinical quality occupied a fragile position. Nurse executives are well placed to help.
Mastal, Joshi, and Schulke 2007 United States	73 hospital CEOs, chief nursing officers, and chairs from 63 hospitals	To analyze the board's engagement in quality and safety and the role of nursing in this	Telephone interviews and focus group	Significant differences in perceptions of CNOs, chairs, and CEOs. Boards had only limited comprehension of salient nursing quality issues.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Prybil et al. 2010 United States	CEOs from 123 nonprofit community health systems	To examine oversight of patient quality at nonprofit community health systems and compare this with benchmarks of good governance	Survey and benchmark analysis	Activities associated with effective governance include standing committees and safety targets/reports. Gaps continued to be found between present reality and current benchmarks.
Prybil, Bardach, and Fardo 2013 United States	Senior trustees and CEOs from 14 private nonprofit health systems	To examine board oversight of quality in private nonprofit health systems and compare this with benchmarks of good governance	Documents, interviews, and benchmark analysis	Effective governance in majority of boards was identified with presence of standing committees, systemwide quality measures, and action plans directed at improving quality.

(Continued)

TABLE 2—Continued

	Participants	Context (aims)	Board Assessment (methods)	Summary of Findings
Ramsay, Magnusson, and Fulop 2010 United Kingdom	Case study of 21 personnel, including board members from a hospital trust in England	To describe the external and internal governance systems for health care–associated infections and medication errors in an NHS trust	Documentary analysis and interviews	Nationally, health care–associated infections had higher priority than medication errors. Governance of medication errors took place at divisional or ward level.
Vaughn et al. 2006 United States	CEOs and senior executives from a cross section sample of 413 hospitals in 8 states	To identify characteristics of hospital leadership engagement in quality improvement	Survey and composite measures of clinical quality	Better quality was associated with boards spending more than 25% of time on quality issues, receiving formal measurement reports, and communicating a quality strategy to medical staff.

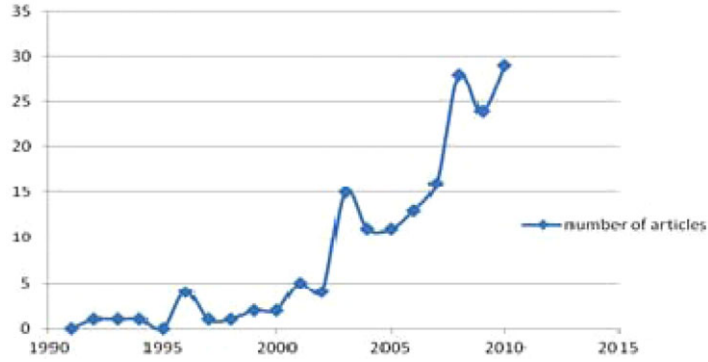

FIGURE 1. Results of the systematic search of board oversight and patient safety.

Findings

A Growing Field of Inquiry

The Institute of Medicine reports, *To Err Is Human* and *Crossing the Quality Chasm* (IOM 1999, 2001) in the United States, and the chief medical officer's report into learning from adverse events in the United Kingdom, *An Organisation with a Memory* (Department of Health 2000), were hugely influential in calling for changes to health care systems and organizations that would improve quality and safety. It is therefore not surprising that our results show large and rapid growth since 2000 in the number of published articles regarding hospital board oversight of quality and patient safety (figure 1), a trend that reinforces the increased policy salience of board oversight of safety.

The study of board oversight in relation to quality and patient safety can be situated within the broader literature that addresses the role of leadership in improving quality in U.S. hospitals (see Jiang et al. 2008; Kroch et al. 2006; Meyer et al. 2004; Paine et al. 2004; Sandrick 2005). With hospitals' variable successes in implementing quality improvement programs and initiatives (Jha and Epstein 2010; Jha et al. 2005), the publication in 2004 of empirical studies of U.S. hospitals also reveals variation in the adoption of board practices thought to be associated with higher performance and better patient outcomes (Joshi and Hines 2006; Kroch et al. 2006). These cross-sectional surveys of predominantly

nonprofit hospitals indicate the importance of examining the leadership actions believed to influence the effectiveness of quality improvement in hospitals (Vaughn et al. 2006).

In 2008, larger-scale studies began to cover wider geographical areas. Building on their cross-sectional survey of the prevalence and impact of board activities in U.S. hospitals (Jiang et al. 2008), Jiang and colleagues (2009) widened their evaluation of board oversight to include its impact on such clinical outcome measures as mortality, morbidity, and complications, as well as differences in the processes of care. Jha and Epstein (2010) carried out the first national survey of board chairs in the United States to analyze boards' engagement with clinical quality and to identify differences between boards' activities in high- and low-performing organizations.

In 2010, studies began to differentiate among and explore board activities related to patient safety in specific socioeconomic, organizational, and geographical contexts. Jha and Epstein (2012) pursued an explicitly socioeconomic focus to compare boards of directors' priorities and practices in serving the interests of minority-group patients. Prybil and colleagues (2010) examined specific board structures, practices, and cultures related to good governance in U.S. nonprofit community health systems. Baker and colleagues (2010) carried out the first significant study of board governance and quality and safety in Canadian health care organizations, and studies from Britain analyzed the formal governance arrangements for health care–associated infections and medication errors (Ramsay, Magnusson, and Fulop 2010). More recently, Jha and Epstein (2013) conducted the first national survey of English hospital board activities, providing an international comparison with their survey of nonprofit acute care hospital boards in the United States.

The theoretical and conceptual dimensions of board oversight also have received more explicit attention. Jiang, Lockee, and Fraser (2011) employed the agency theory perspective as a lens through which to explore the role and practices of hospital governing boards, while Ford-Eickoff, Plowman, and McDaniel (2011) explored how concepts like complexity absorption and requisite variety can support hospital board governance and oversight, hypothesizing that boards whose members have a greater variety and breadth of expertise can better respond to complex environments and have greater potential for sense-making and learning.

Emerging Story Lines

Our review of board oversight of patient safety found a variety of empirical evidence and expert advice suggesting that specific board activities are associated with improvement in the quality and safety of hospital care. The results also suggest, however, that the adoption of such activities remains variable and that our understanding of boards' impact on patient safety currently is limited. We present the findings thematically, as four story lines derived from the narrative review: leading for safer care, measuring safe care, implementing internal board oversight, and relying on external regulation and accountability.

Leading for Safer Care

Board oversight of patient safety tends to reflect a key message from the quality improvement literature as a whole, that is, that strong and committed leadership from the CEO and the board is vital to the success of quality improvement and safety programs (e.g., Conway 2008; Gautam 2005; Healthcare Commission 2009b; Sandrick 2005; Schyve 2003). A review by Clarke, Lerner, and Marella (2007) suggests that leadership on patient safety should learn from the characteristics and behaviors of high-reliability organizations such as those found in the nuclear and aviation industries. In health care, leadership is associated with perceiving lapses in patient safety to be a problem with the system rather than with individual employees and—with words and actions that promote a culture that encourages the identification of mistakes—emphasizes systemic improvements that reduce variability and make safety a given.

Empirical evidence from cross-sectional surveys in the United States suggests that boards demonstrating such leadership have a positive impact on their organizations' safety performance. Boards that place a high priority on quality and safety are associated with higher performance (Jiang et al. 2009), as are boards that set strategic goals for quality improvement and demand reports on the progress of action in response to adverse events (Jiang et al. 2008; Prybil, Bardach, and Fardo 2013). A U.S. national survey of 722 chairpersons by Jha and Epstein in 2007 and 2008 found that respondents from high-performing nonprofit hospitals were more likely than respondents from low-performing nonprofit hospitals to establish and publicly disseminate goals and to perceive

themselves as influential throughout the organization (Jha and Epstein 2010).

Although such practices have been found to be associated with effective leadership on patient safety, empirical evidence shows significant variation in their implementation. Drawing on the 2006 the Governance Institute (TGI) survey of 562 chairpersons and CEOs from hospitals across the United States, Jiang and colleagues (2008) found that fewer than half the CEOs regarded their organizations' governing boards as very effective in overseeing quality. Similarly, in case studies of Canadian and U.S. health care organizations, Baker and colleagues (2010) found that although most boards had established strategic goals for quality improvement, many did not have specific objectives with clearly defined targets, indicating that words were not necessarily backed up by actions. Observation research by Machell and colleagues (2010) on how nurse executives and boards work in acute care hospitals and mental health trusts across England found that many chief nursing officers perceived board members to be only moderately engaged in quality improvement initiatives. This was attributed to the members' lack of knowledge about quality and patient safety issues, limited time for participating in quality initiatives, and dearth of quality champions at the board level. Such a view is echoed in the qualitative research of nonprofit hospitals in the United States. Gray and Weiss's interviews with CEOs and trustees (2004) in 1998 and 1999 found that the two most important issues for local nonprofit hospital boards in the New York City area were mergers/acquisitions and financial management, with hospital quality and safety receiving far less attention. These findings are consistent with U.S. national survey data from Jha and Epstein (2010) showing that approximately half the nonprofit hospital boards did not rate quality of care as a top priority for board oversight or CEO performance evaluation. Most boards were focused primarily on financial issues and assumed that their quality of care was adequate.

Measuring Safe Care

Board oversight of quality and patient safety rests on the directors' ability to obtain, process, and interpret information; assess current performance; and set strategic direction using a range of metrics tailored to local circumstances. Expert advice helps boards understand quality and safety performance through the use of checklists and dashboards (Bader 1993;

Goeschel, Holzmueller, and Pronovost 2010; Lathrop 1997; Meyers 2004; Pugh and Reinertsen 2007; Slessor, Crandall, and Nielsen 2008). Reinertsen (2007) summarized the steps that trustees can take to manage quality in their organizations by concentrating on a few internal quality measures, or "dots," and argued that such an approach can generate significant improvements, particularly in building organizational buy-in, maintaining constancy of purpose, and nurturing collaborative effort.

Empirical evidence from U.S. hospital surveys indicates that boards that review and track their organization's performance through the collection and analysis of internally generated data (quality dashboards or scorecards) and national benchmarks are likely to have better outcomes in regard to quality (Jiang et al. 2008, 2009; Jiang, Lockee, and Fraser 2011). This finding is supported by U.S. research by Kroch and colleagues (2006), whose analysis of hospital board dashboard composition found that higher-performing organizations were more likely than their lower-performing counterparts to have dashboards that were shorter and more frequently reviewed and focused on areas critical to quality. In England, single case-study research conducted in 2008 by Ramsay, Magnusson, and Fulop (2010) found that a hospital's scorecard data offered a view of the organization as a whole and facilitated division- and ward-specific analysis and feedback on the governance of health care–associated infections. Empirical studies and expert advice also emphasize, along with the use of formal performance metrics and quantitative data sets, the role of soft intelligence in capturing the qualitative experience of patients and staff, which often defies simple coding and quantification (Baker et al. 2010; Frankel et al. 2003). In the United States, Joshi and Hines's interviews with board chairs and CEOs (2006) identified the measurement of patient centeredness as a key issue for board oversight of quality of care. Joshi and Hines also recommended tapping into informal and soft intelligence channels as a way to safeguard care by including executive walkarounds, having patients tell their stories at board meetings, and allowing board members to shadow clinicians, enabling them to better understand frontline challenges in delivering safe care.

Patient safety metrics clearly are important to any strategy designed to improve care, and the empirical evidence shows a need for increasing board members' proficiency in the use and interpretation of metrics and for improving the credibility, validity, and reliability of data. Baker and colleagues (2010) found that many Canadian health care organizations

had struggled to develop useful measurements for board oversight of quality and patient safety. Their survey of board chairs from hospital as well as regional and community organizations reported that even though boards received and discussed a range of quantitative indicators, only half rated the information as good or excellent in enabling them to accurately assess their organization's performance. In England, research found that the information accessible to hospital boards generally fell short of the then NHS regulator's recommended range of quantitative and qualitative material (Healthcare Commission 2009a) and that more needed to be done to relay information about safety performance to frontline staff (Healthcare Commission 2009b). Jha and Epstein's recent survey of 132 chairpersons in England (2013) also reported a variable use of quality metrics by English hospital boards and found that boards of hospitals with foundation status were more likely than nonprofit boards in the United States to use quality dashboards, request quality reports, and review specific quality data as part of their oversight activities. Variation in the use of metrics by U.S. boards is illustrated by the survey and scorecard analysis by Goeschel and colleagues (2011), which shows significant differences in the use of scorecards across the participating hospitals in Michigan and Tennessee. In contrast, interview and documentary research by Prybil, Bardach, and Fardo (2013) found a high degree of consistency in measurement, with eleven of fourteen large nonprofit health systems in the United States formally adopting systemwide quality measures and standards.

Expert advice has addressed the need for board members to have greater awareness and understanding of quality and safety, recommending that quality expertise be included in board members' competency profiles and suggesting that boards receive training and continuing education in quality and safety (Healthcare Commission 2009a). Evans (2009) recommended that exams for board members on the use and implementation of quality measures could improve hospitals' quality and accountability of care.

Empirical studies have assessed the quality literacy of hospital boards by considering members' participation in formal training programs and the time they set aside to develop knowledge and capability in regard to improving patient safety. Such work has revealed the limited time and resources that many boards devote to such activities. U.S. and Canadian research found a "remarkably low" degree of knowledge among hospital boards about published quality reports and best-practice guidance in

relation to safe care (Joshi and Hines 2006), with many board members having little expertise in using and implementing such information (Baker et al. 2010). Formal training for boards on clinical quality also appears to be underdeveloped (Jha and Epstein 2010). Reflecting on the findings of the 2006 Governance Institute survey in the United States, Jiang and colleagues (2009) suggested that the lack of formal training poses specific difficulties for board members from sectors outside health care, as they are less likely to have the technical skills that would enable them to address clinical quality issues. More recently, comparative research by Jha and Epstein (2013) found that chairpersons in NHS hospitals judged their own expertise regarding quality as being greater than their U.S. counterparts did. Moreover, the surveys suggest that board chairs' assessments of their hospitals' quality performance (in both England and the United States) are overrated when compared with the external assessments by the Hospital Quality Alliance (in the United States) and the Care Quality Commission (in England).

Implementing Internal Board Oversight

The role of hospital board members in overseeing quality of care is to monitor the strategic plans that senior management develop or to act as advisers and work at the periphery of the decision-making process (Ford-Eikoff, Plowman, and McDaniel 2011; Marren, Feazell, and Paddock 2003). Baker and colleagues (2010) noted that health boards historically tended to delegate the oversight function to medical staff and did not consider quality and safety issues to be their top priority, which might reflect the board members' recognition of clinical leaders' expertise and the traditional separation between the responsibilities of administrative and medical staff.

The increasing interest in board oversight of patient safety has also focused on formal organizational structures and processes for safeguarding care, as well as the informal relationships and dynamics between boards and professional groups. One aspect of this is boards' agendas and the extent to which patient safety is discussed at board meetings. Findings from U.S. hospitals suggest that having quality and safety as a standing item on the board agenda provides a critical lever for engagement in quality and safety issues (Jha and Epstein 2010; Joshi and Hines 2006). Jiang and colleagues (2008) found that even though most board meetings

had agenda items on quality, only 41 percent of boards indicated that they spent more than 20 percent of meeting time on quality. Hospitals whose boards spent 20 percent or more of meeting time on quality had better process-of-care rates than hospitals whose boards spent less time on quality (Jiang et al. 2009). This research supports earlier findings on variability among hospitals in relation to the amount of time that boards devoted to quality and safety. In England, qualitative research from the Healthcare Commission (2009a) found that safety was rarely the first item on the board agenda. This is supported by observational research of English hospital boards by Machell and colleagues (2010), whose main conclusion was that considerations of clinical quality were accorded a low priority in boardrooms, compared with financial matters, organizational restructuring, and the need to meet central government performance targets.

The formal structure of boards has also been found to be related to the effective oversight of patient safety (Bader 2006). U.S. national survey data show that boards with a separate quality committee are more likely to be high performing than are those without such a committee. High-performing organizations are more likely to use quality dashboards or scorecards, issue written policy throughout the organization, and establish strategic goals for quality improvement (Jha and Epstein 2013; Jiang et al. 2008, 2009). But qualitative research into a hospital trust in England by Ramsay, Magnusson, and Fulop (2010) found differing opinions about the effectiveness of subcommittees. Despite concern that the duplication of messages might lead to mistakes in reporting, it also was seen as necessary to sustain staff engagement in safety-related issues.

In addition, effective board oversight of safety requires attention to the dynamics and tensions within and among boards, medical staff, and senior leaders (Weiner, Shortell, and Alexander 1997). In particular, expert advice advocates having a physician leader on a board quality committee in order to enhance performance by facilitating communication and building trust and confidence (Marren, Feazell and Paddock 2003; Reinertsen 2007; Weiner, Shortell, and Alexander 1997).

The empirical analysis of the 2007 Governance Institute survey by Jiang and colleagues (2009) found that hospitals in which representatives with clinical expertise served on the board's quality committee performed significantly better on process and outcomes of care than did hospitals that had no such expertise on their boards. Collaborative retreats with multidisciplinary staff groups (Heenan, Khan, and Binkley

2010) and internal collaboratives, built around safety initiatives, also were found to enhance safeguarding processes (Paine et al. 2004).

Although such intergroup dynamics are associated with benefits, expert advice and empirical research highlight the need for board development in this area. Nursing leadership, for example, remains conspicuously absent from many board deliberations and decision making (Machell et al. 2010; MacLeod 2010; Mastal, Joshi, and Schulke 2007; Meyers 2008; Prybil 2007, 2009, 2013). Gray and Weiss (2004) noted that further discussion was required regarding the ethical conflicts and ambiguities that can arise when board members combine professional and clinical interests with corporate roles and duties. Boards' relationships with the wider patient community also should be considered. A survey of U.S. nonprofit hospitals by Jha and Epstein (2012) conducted in 2008 revealed that board chairs in hospitals serving predominantly black populations reported less expertise and prioritization of quality issues than did chairs of boards in non-black-serving hospitals.

Relying on External Regulation and Accountability

Our primary focus has been on internal processes for board oversight of patient safety, but we also considered research on the external accountability of boards. Case-study research by Baker and colleagues (2010) found that Canadian organizations grappled with the challenge of reconciling the information needed for external accountability with that required to inform local improvements. One dilemma was whether to make performance data publicly available. Some hospitals had made available information on the incidence of clostridium difficile, meticillin-resistant staphylococcus aureusis (MRSA), and vancomycin-resistant enterococci (VRE) infections, whereas other hospitals were approaching the issue more cautiously.

In the English NHS, a case study of a hospital by Ramsay, Magnusson, and Fulop (2010) considered the board's accountability in relation to national targets and regulatory bodies for health care–associated infections and medication errors. Although the researchers could not categorically conclude that stronger external governance resulted in more effective local governance, they found that at the time of data collection in 2008, rates of health care–associated infections such

as MRSA and clostridium difficile were amenable to metaregulation, for example, through target setting. Medication-error data based on incident reports were identified as being more difficult to govern, because such events tended to be more open to interpretation and to suffer from substantial underreporting.

Qualitative research by the Healthcare Commission (2009a) in England found that despite the onus on commissioners or purchasers of services to drive up quality and safety through contracting and payment systems, there were local variations in the commissioners' robust information systems in place for holding hospitals to account for the quality of care that they provided. Commissioning practice in holding provider organizations to account varied across health economies from ad hoc requests to providers for reports of serious untoward incidents to the systematic benchmarking of providers against indicators of quality and safety. The research found that the most effective accountability arrangements between commissioners and providers were those that were supported by "relational contracting" and that built on strong personal relationships and collaborative, rather than competitive, partnerships among organizations.

Synthesis

Studies of board governance and patient safety have identified a wide range of governance practices that are associated with higher performance. Some pertain to routine feedback and monitoring in the corporate board environment, such as spending time on quality issues, using quality performance reports, regularly reviewing dashboard indicators to monitor quality, and setting quality goals at the theoretical ideal level rather than average levels or national benchmarks. Others are more strategic in focus, such as involving medical staff in the quality strategy, having a quality subcommittee, and developing new clinical programs and services to meet quality-related criteria. Finally, approaches pertaining to wider systems of governance are important. Examples are the exploration of different ways of producing public reports to enhance transparency and accountability to the community, and the equal involvement of board (corporate) and medical (professional/collegiate) staff in setting the agenda (Jha and Epstein 2010; Jiang et al. 2009; Jiang, Lockee, and Fraser 2011; Vaughn et al. 2006).

Taken together, the findings suggest that empirical studies of patient safety governance are informed by the broad assumption that failures in safety (adverse events) are not brought about solely by individual human error but are conditioned, precipitated, and exacerbated by wider systemic and latent factors in the work environment and organizational context (Waring et al. 2010) and therefore are amenable to control and prevention. This assumption functions as a latent program theory in the field of inquiry, and its influence is clearly seen in the nature of the dependent and independent variables selected in the more recent large-scale quantitative studies considered earlier. To summarize, empirical studies of board oversight of patient safety are clearly situated within a quality and safety paradigm (Vincent 2011).

Methodological and Theoretical Development

Despite such apparent coherence in a relatively new and emergent empirical literature, the field remains methodologically and theoretically underdeveloped. The empirical study of board governance and patient safety consists largely of cross-sectional surveys, predominantly undertaken in U.S. acute health care settings (Jha and Epstein 2010; Jiang et al. 2008). The limitations of this study design are acknowledged and include poor generalizability and an inability to substantiate causal relationships among study variables, as opposed to statistical correlations. Although cross-sectional empirical studies have increasingly specified board processes and reporting arrangements in addition to expected outcomes of good patient safety governance, such as low readmission rates and avoidance of adverse events (Jiang et al. 2008, 2009), hypothesized relationships between dependent and independent variables generally remain badly defined. The implicit assumption that aspects of board oversight lead to high-performing organizations (Joshi and Hines 2006) is plausible, but this relationship is likely to be multidirectional and could be confounded by a variety of factors that are currently not well described in the literature or elaborated in multivariate empirical models.

While empirical studies document the structural characteristics of hospitals in terms of size, ownership, teaching status, urban/rural location, and region within their respective samples, the cross-sectional

design has often left implicit or been unable to attribute differences in processes and outcomes of patient care quality and safety of different types of hospitals (e.g., for-profit/nonprofit/community/acute care) and hospital boards (e.g., local/multiunit systems). The analysis of these causal relationships is likely to be important when we consider the current environmental and organizational pressures facing hospitals, particularly those in the United States, given the growing consolidation of hospitals into multiunit systems, as noted earlier.

Theory could play a much more explicit role in the development of hypothesized relationships between independent and dependent variables for empirical testing in this field of inquiry. In addition, a closer relationship between theory and empirical work would strengthen the credibility of advice on how best to govern for patient safety. This is an important consideration, given that the corporate governance literature makes conflicting normative claims about how board members should behave, some of which originate in the assumptions of the theoretical model rather than in the empirical verification of the behavior's ability to achieve a specified outcome. In short, although plenty of advice is available to boards on what they should do, the different expectations of the boards' purpose lead to conflicting advice. Although Chambers and Cornforth (2010) summarized well the rival theoretical traditions that inform competing schools of corporate governance, it might be helpful to consider briefly the rival theoretical framings of agency and stewardship perspectives on corporate governance, to illustrate their potential for explicit hypothesis generation to underpin empirical inquiry, and to provide an example of how the implicit use of theory may lead to conflicting advice on what boards ought to do.

Agency theories of corporate governance require the board to develop processes to ensure the effective scrutiny of executives, on the assumption that the interests of citizens and officials are not aligned and officials will act to secure their own interests. In contrast, stewardship models assume a greater alignment of interests between executives and citizens and emphasize the importance of board processes in improving performance (Chambers and Cornforth 2010). From an agency perspective, one might reasonably hypothesize that boards that hold executives to account through elaborate systems of audit (checking) will achieve better patient safety outcomes. Alternatively, from a stewardship perspective, one might hypothesize that such systems are likely to reduce the creativity that committed executives require if they are to achieve superior

performance (trusting) (Davies and Mannion 2000). Both agency and stewardship framings are found in the patient safety literature, agency in the study by Jiang, Lockee, and Fraser (2011) and stewardship by Prybil and colleagues (2010), who suggested that boards appear to be embracing the stewardship of quality and safety as a fundamental duty. However, in neither case are these models explicitly used to generate testable hypotheses that underpin the empirical work.

While we strongly argue for a more explicit use of the corporate governance literature to guide empirical work, we also encourage greater attention to the potential limits of the corporate governance literature in relation to patient safety. Specifically, we draw attention to the implications of cultural theory (Hood 1999) for governance for patient safety. Hood's model identifies markets and professional clans as bases of authority (modes of governance) that could compete with the corporate board, the implication being that the operation of insurance markets and/or professional bodies may limit a board's ability to govern. Contextual differences are important to the institutional arrangements that characterize health care systems. Comparative evidence of such differences is emerging, most notably Jha and Epstein's (2010) recent observation of substantial differences between boards of directors in England and the United States, which were accounted for by the different roles and resources allocated to board members as well as the different health care systems in each country.

Thus, board oversight as a mechanism for change is likely to lead to different outcomes according to the context. We need to reflect on the extent to which the current field of corporate governance is appropriately conceptualized and applicable to the complex quasi markets, multiunit systems, and professional bureaucracies that tend to characterize health care. In short, greater attention to the theoretical and conceptual basis of board oversight would help the development of the empirical field and would help prevent, for example, advocating simple prescriptions for strong leadership without first defining such leadership, how it is to be obtained, and the causal mechanisms that lead to its desired effects.

Given these methodological and theoretical limitations, it is clear that the quantitative study of board oversight for patient safety requires further work in developing new measures and relationships, underpinned by crisper theorizing. It is especially important to test assumed causal relationships between practices leading to good governance and desired outcomes leading to safer care. Moreover, eval-

uation programs will need to assess the extent to which interventions are implemented as intended, as well as to search for unintended consequences. In addition, further study of the microprocesses associated with board oversight is required (Dixon-Woods et al. 2012). While qualitative and case-study research is beginning to emerge in this area (Baker et al. 2010; Ramsay, Magnusson, and Fulop 2010), further study of the practices undertaken in the boardroom would provide much-needed insight into exactly how patient safety governance is exercised and experienced.

Concluding Remarks

Despite growing pressures for boards to improve and emerging evidence that more effective board oversight is associated with higher quality of care, efforts to create effective governance for quality and patient safety are only in their early stages. Many boards have focused largely on financial performance and access issues and are still developing the broader skills needed to assume a more corporate role while assembling the necessary expertise in quality and patient safety.

In view of the increasing expectations and pressure to deliver better care more safely, it is more urgent than ever that hospital governing boards take action to strengthen their oversight of patient safety. Our review has captured some of the key areas in which boards may be able to develop greater expertise, through, for example, the provision of better information and education for board members in using data to inform decision making. Our review also indicates that efforts to create effective governance for quality and patient safety remain variable and are only just beginning. Future work in this area is required, focusing on which available conceptual models provide appropriate bases for action and whether empirical studies of board oversight practices associated with good patient safety outcomes can be adequately theorized and translated across different settings. This is an exciting research agenda, with direct and serious implications for patient care.

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